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# DEVELOPMENT OF SOVIET RADIO ENGINEERING IN 1950

N. D. Psurtsev,
Minister of Communications USSR

[Comment: Material on developments in wire broadcasting has been omitted from the following report; this information is contained in 00-W-21810, "Survey of Wire Broadcasting in USSR," 10 March 1952.]

The achievements of the scientific research institutes and workers in the radio industry, radio broadcasting, radiofication, and communications are clearly seen in the Stalin Prizes awarded in 1950 for new radio receiving and broadcasting equipment.

The prewar power levels of broadcast stations and the number of wired radio centers and loudspeakers have been surpassed. Several new radio broadcasting stations with Soviet-produced equipment went into operation in 1950.

New progress was also made in Soviet television, which has become an important part of the lives of Moscow and Leningrad residents. The reception distance of the Moscow Television Center was increased to 60 kilometers. More programs were transmitted from theaters, concert halls, and stadia. Work continued on the construction of the Kiev Television Center and on the design of centers for other Soviet cities. The output of television receivers has increased considerably this year.

Radio amateurs have considerably aided the development of television. In Tula and Ryazan', television enthusiasts succeeded in receiving programs from the Moscow Television Center. Amateurs built a video test transmitter in Khar'kov. This further demonstrates that amateurs can assist in the development of radiofication and television.

Economical receivers such as the "Moskvich," "ARZ-49," "Tallin B-2," "Iskra-49," "B-912," "Tula," and a number of others are also used for radiofication.



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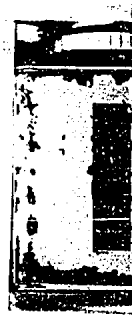

During 1950, frequency-shift keying was used more extensively in long-distance communication. This permitted using one transmitter to work with two correspondents located in the same direction or in diametrically opposite directions.

Frequency-shift keying was widely introduced in trunk-line and also in interoblast radio communications. A simple exciter and a frequency-shift keying adapter were developed for interoblast communications, permitting a transfer to this type of operation without excessive costs.

New first-class receivers, equipped with full-band drivers, Type "VChD-100," are being supplied to communications trunk lines. Multiple use of receiving antennas has become a reality through the use of aperiodic amplifiers.

Work continued on the use of very short waves for communications. Technical characteristics of communications channels operating on these wave lengths satisfy the norms established in wire telephone communications for residual attenuation, frequency and amplitude characteristics, marginal stability, etc.

In 1950, a number of instruments were developed for a check on continuity of operation, stability of radiated power, and modulation index of the main broadcasting stations. The introduction of these devices will improve the quality and effectiveness of radio broadcasting and communications operations.

By equipping technical check points with frequency-measuring instruments developed by a scientific research institute, control of adherence to assigned wave lengths was improved. A model of an all-wave field intensity meter developed by the same institute will permit us to obtain precise, objective data on wave propagation.

In addition, a new precision instrument was developed for checking and measuring frequencies in the 15-60 Mc band.

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